



205118

United States Environmental Protection Agency  
Region 5  
POLLUTION REPORT

**Date:** Wednesday, December 31, 2003

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**Subject:** Emergency Phase Complete  
Garfield Alloys Fire  
4878 Chaincraft Road, Garfield Heights, OH

<b>POLREP No.:</b>	2	<b>Site #:</b>	593
<b>Reporting Period:</b>		<b>D.O. #:</b>	
<b>Start Date:</b>		<b>Response Authority:</b>	CERCLA
<b>Mob Date:</b>	12/29/2003	<b>Response Type:</b>	Emergency
<b>Completion Date:</b>		<b>NPL Status:</b>	Non NPL
<b>CERCLIS ID #:</b>		<b>Incident Category:</b>	Removal Assessment
<b>RCRIS ID #:</b>		<b>Contract #</b>	

### Site Description

#### Site Description

The Garfield Alloys site is a massive fire that engulfed a magnesium recycling facility. The facility (Garfield Alloys, Inc.) is located at 4878 Chaincraft Road, Garfield Heights, Cuyahoga County, Ohio. The property encompasses 4 buildings and is 16 acres in size. The site is bordered to the north by Norfolk Western Rail Road Line; to the west by Chaincraft Road; and to the south by Mill Creek. The facility processes and recycles magnesium into ingots for resale.

(map source: WKYC News)

### Background

The fire started at approximately 1500 hours on December 29, 2003. The origin of the fire is unknown and under investigation. Magnesium metal is highly reactive with moisture and,

rainy weather conditions on December 29th had complicated response efforts. Magnesium Oxide is the primary off-site release threat from this fire. Magnesium Oxide is a respiratory irritant. The Garfield Heights Fire Department is responded to this incident in coordination with Cuyahoga County Emergency Services, Ohio EPA, U.S. EPA, Cuyahoga County Board of Health, Cleveland Department of Public Health, Ohio Department of Health, Northeast Ohio Regional Sewer District, and numerous support Fire Departments. The evacuation that was ordered for approximately 200 nearby residents has since been lifted. It is estimated that approximately 1/3 of the site has burned. The fire is over 90% out.

## **Current Activities**

### **1. Current Situation**

U.S. EPA is in the process of demobilizing from the site. Air monitoring and sampling has indicated that there is no immediate threat to the surrounding community. U.S. EPA will work with Ohio EPA to determine necessary follow-up measures to insure appropriate clean-up of the burned structure and appropriate disposition of run-off water.

### **1. Site Activities**

On December 30, 2003, during the evening hours, the fire continued to smolder. U.S. EPA continued to conduct downwind perimeter air monitoring. U.S. EPA ERT/REAC collected twelve air samples over 8 hours from locations adjacent to the burn area and from the site perimeter. Three DataRams (particulate monitors) were set up around the burn area to assess particulate concentrations over a 8-hour period of time.

U.S. EPA, the Cuyahoga County Health Department, and Ohio Department of Health established the magnesium oxide action level for residential areas as 10 mg/m<sup>3</sup>. The Agency for Toxic Substances and Disease Registry (ATSDR) concurred that this level was appropriate for short term exposure. This action level for magnesium oxide was based upon the 8-hour time weighted average (TWA) limit for magnesium oxide.

On December 31, 2003, U.S. EPA completed the air sampling event and sent the samples to U.S. EPA's ERT laboratory for metal analysis. The Garfield Heights Fire Department continues to monitor the smoldering fire. A representative from the U.S. Chemical Safety and Hazard Investigation Board was on site to conduct a site investigation.

Thermal imaging with the ASPECT aircraft has shown a significant decrease in heat over the past 18 hours. Infrared (FTIR) plume scanning with the aircraft verified the presence of magnesium oxide, however, the concentration of this contaminant was too low to quantify.

## **Planned Removal Actions**

- None

**Next Steps**

- Support local and state responders as requested.
- Work with Ohio EPA to develop an assessment plan (post fire).

**Key Issues**

- U.S. EPA will participate in post-response briefings and support site actions as appropriate.

**Estimated Costs \***

	<b>Budgeted</b>	<b>Total To Date</b>	<b>Remaining</b>	<b>% Remaining</b>
<b>Extramural Costs</b>				
RST/START	\$0.00	\$15,000.00	(\$15,000.00)	0.00%
REAC	\$0.00	\$6,000.00	(\$6,000.00)	0.00%
<b>Intramural Costs</b>				
USEPA - Direct (Region, HQ)	\$0.00	\$5,000.00	(\$5,000.00)	0.00%
USEPA - InDirect	\$0.00	\$9,300.00	(\$9,300.00)	0.00%
<b>Total Site Costs</b>	\$0.00	\$35,300.00	(\$35,300.00)	0.00%

\* The above accounting of expenditures is an estimate based on figures known to the OSC at the time this report was written. The OSC does not necessarily receive specific figures on final payments made to any contractor(s). Other financial data which the OSC must rely upon may not be entirely up-to-date. The cost accounting provided in this report does not necessarily represent an exact monetary figure which the government may include in any claim for cost recovery.

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